AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A spectrally selective optical switch, comprising

a first and a second optical waveguide each having a light guiding structure arranged to guide light along a predetermined path, the optical waveguides being arranged adjacent and parallel to each other;

an external resonator defined by a first and a second mirror, said first and said second mirror being provided on opposite sides and outside of said first and second light guiding structures, and said external resonator being resonant to a specific wavelength; and

a deflector provided in each of said first and second optical waveguide, the deflectors being arranged to deflect light propagating in one of the light guiding structures to the other light guiding structure by operation of said external resonator,

wherein the deflector in at least one of said first and second optical waveguides comprises:

a first tilted deflector arranged in said at least one of said first and second optical waveguides, and

a second tilted deflector arranged in said at least one of said first and second optical waveguides,

wherein said first tilted deflector and said second tilted deflector are superimposed upon each other, and arranged to deflect light out from said at least one of said first and second optical waveguides into two individual beams, and

wherein each of said first tilted deflector and said second tilted deflector comprises a blazed Bragg grating.

2-3. (Cancelled)

4. (Previously Presented) The optical switch according to claim 1, wherein either one of the first and the second mirror is a dielectric multi-layer mirror.

5. (Previously Presented) The optical switch according to claim 1, wherein the wavelength to which the external resonator is resonant is adjustable, the spectrally selective optical switch thereby being tunable.

6. (Previously Presented) The optical switch according to claim 1, wherein the optical waveguide is an optical fiber and the light guiding structure is a core in said optical fiber.

7. (Previously Presented) The optical switch according to claim 1, wherein the first and second waveguides are implemented in the form of a dual-core fiber.

8. (Previously Presented) A matrix switch device, which uses N input fibers to N output fibers, where the input fibers are crossed with respect to the output fibers and where the N input fibers are linked to the N output fibers in N*N nodes, wherein said linking is at least partly accomplished with an optical switch according to claim 1.

9. (Original) An arrangement comprising two optical switches as defined in claim 1, wherein the first optical waveguides of the switches are connected to each other by means of a first interconnecting waveguide and the second optical waveguides of the switched are connected to each other by means of a second interconnecting waveguide, and wherein each of said switches is arranged to couple 50 percent of available light power from the first optical waveguide to the second optical waveguide, the arrangement further comprising means for altering the optical path length of at least one of the first and the second interconnecting waveguides such that constructive or destructive interference can be obtained in the second optical waveguide of the second switch by altering said optical path length.

10. (New) The optical switch according to claim 1, wherein said first tilted deflector and said second tilted deflector are oriented at a right angle with respect to each other.